



INTERNSHIP OFFER

Ref. No. CH-2024-000023

Internship Host Information

Internship Host:	ARTORG Center for Biomedical Engineering Research	Website: www.artorg.unibe.ch
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	Murtenstrasse 50	Location of placement: Bern
		Nearest airport: Zurich
	3008 Bern	Working hours per week: 43.0
	Switzerland	Working hours per day: 8.6

Number of employees: 12

Business or products: Biomedical Engineering Research

Student Required

General Discipline:	ELECTRICAL AND ELECTRONICS ENGINEERING; BIOLOGICAL AND BIOMEDICAL SCIENCES; OTHER	Completed years of study:	3
Field of Study:	Biomedical/Clinical Engineering	Student status requirements:	Only required for non-EU/EFTA passport holders
		Language required:	English Excellent (C1, C2)

Required Qualifications and Skills:

Other requirements:

- Master or at least finished Bachelor degree with research experience
- Basic knowledge of clinical trials, protocol development and analysis; knowledge of human anatomy and physiology
- Fundamentals of biomedical instrumentations, documentation skills, and statistical analysis
- R-Programming, User/Market Research and Database Creation
- Basic knowledge in C++/C and/or other programming skills. Basic knowledge in the software hardware testing process

- Self-driven individual who enjoys working in a dynamic environment and small team
- Strong critical thinking skills, detail oriented
- Ability to understand requirements and translate them into suitable solution architecture
- Ability to deal with nonverbal symbolism (formulas, scientific equations, graphs, etc.)

Internship Offered

The Image-Guided Therapy Group of ARTORG Center for Biomedical Engineering Research of the University of Bern, together with the Department of Neurosurgery of the University Hospital, Inselspital Bern, is working on a collaborative project for preoperative training of microsurgical procedures. Technology readiness level TRL 2 to TRL 4 is underway, and we are currently validating the prototype with the neurosurgeons in Inselspital Bern with a focus on TRL 5 to TRL 8. You would join our international team with the following responsibilities:

- Will be responsible for the development and delivery of physician training plans. This includes but is not limited to hands-on training such as simulated procedures as well as training materials development and preparation.
- Converting the raw data acquired from the Hospitals and Fields into quantifiable figures and values. Ability to handle a large amount of data during the training process of the Artificial Intelligence System under supervision
- Interaction with surgeons and other internal teams such as software and mechanical engineering for project management, product validation, and manufacturing support. Translation of clinical knowledge base into a digital knowledge base (Machine-understandable).
- Coordinate with the development team based on the observed clinical problem. Assisting the developers with the carried-out research. Creation of the architecture and support in the definition of requirements in accordance with regulatory standards.
- Conduct clinical trials and laboratory experiments as per the protocols. Troubleshooting hardware and software used in data collection. Presentation of the results, data, strategy, and forecasts monthly to the team.

Stay of one year preferred.

Number of weeks offered:	26 - 52	Working environment:	Research and development
Within the months:	01-SEP-2024 - 31-DEC-2025	Gross pay:	2300 CHF / Month
Or within:	-	Deduction to be expected:	approx. 10 % Social security AHV/IV
Company closed within:	-	Payment method / time of first / payment:	
Latest possible start date:	01-JAN-2025		

Accommodation

Canteen at work:	Yes		
Expected type of accommodation:	Depends on availability, room in shared flat or student dorm	Estimated cost of lodging:	750 CHF / Month
Accommodation will be arranged by:	IAESTE LC Bern	Estimated cost of living incl. lodging:	1600 CHF / Month

Additional Information

Students with any NON-EU/EFTA nationality need for the visa and work permit an official letter from their university, confirming that the internship is compulsory (IAESTE Switzerland will apply for them).

Nomination Information

Deadline for nomination: 22-JUL-2024

Date: 04-JUL-2024 *On behalf of receiving country:* IAESTE Switzerland